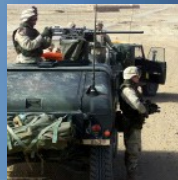# DoD RFID Policy Update

November 17, 2004

Kathy Smith| Office of the Assistant Deputy Under Secretary of Defense

(Supply Chain Integration)

Agenda

- **RFID Vision**
- **RFID Policy**
- **Passive RFID Implementation Plan**
- **Benefits**
- **Next Steps**

Facing new challenges...

- Rapidly moving force on a dynamic battlefield
- Demand for better information on assets
- Need for more effective management of inventory

- Improve business processes now
- Influence the direction and cost of technology development
- Drive the standards to work for us
- Facilitate the implementation of Unique Identification (UID)

The RFID Vision

Implement knowledge-enabled logistics through fully automated visibility and management of assets in support of the warfighter
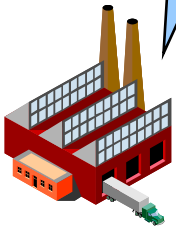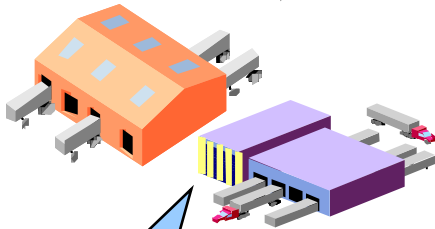
An enabler to the Integrated DoD Supply Chain

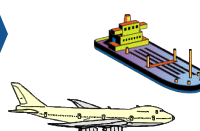**Cases/Pallets are labeled** with passive RFID tags. Cases are associated to pallet

Cases/Pallets are read as they are received and **new shipments are labeled**. Orders are verified for
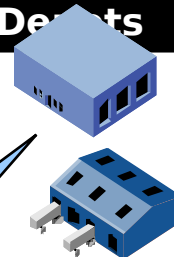
Cases/Pallets are associated with **Active RFID** to provide TAV.

Data is timely and accurate via network of linked readers allowing asset visibility along the entire supply chain

Manufacturers/ Suppliers

Distribution Centers/Depots/TDCs

Commercial/Military Carriers

TMO/Supply/ Theater Depots

Customer

Timely and Accurate Data

When shipments are reconfigured a new RFID Tag is created for the pallet and associated with cases on that pallet

The **cases/pallets are automatically received** with few disputes and info is shared with the AISs. Reconfigured shipments

Customers have visibility of requisitions and **are confident** in the status provided by the system

5

July 30, 2005 Policy

Active RFID - freight containers, air pallets

- **Long range, large amount of data**
- **SAVI readers and tags**
- **DoD tag data formats**
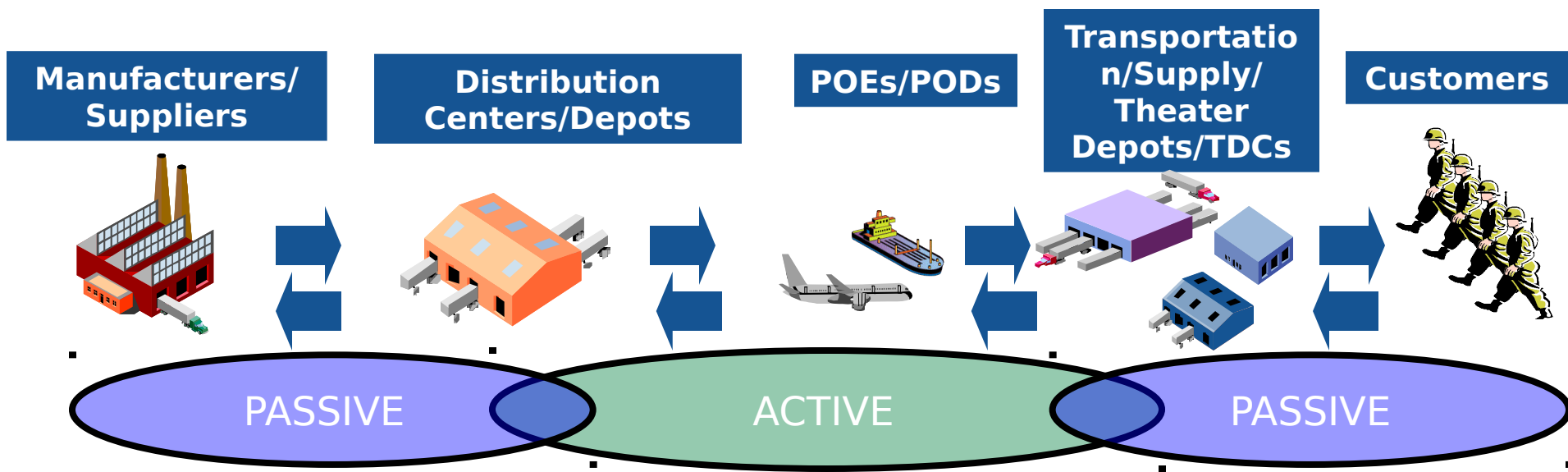
Passive RFID – case & pallet (all it item packaging (UID items)

- **Short range, small amount of da**
- **EPC standard readers and tags**
- **EPC and DoD tag data formats**

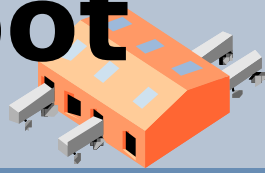# Complementary use across the logistics supply chain

Manufacturers/Suppliers

Distribution Centers/Depots

POEs/PODs

Transportation/Supply/Theater Depots/TDCs

Customers

PASSIVE

ACTIVE

PASSIVE

Distribution Center/Depot (Sustainment)

8 Overhead scanner read the passive RFID tag.

7 Loose/Broken picks are processed using a similar method.

6 Full cases are directed via passive RFID and placed on the conveyer.

9 Cases are sorted according to the pallet indicated. Readers at palletization stations **read the passive RFID as the cases are being palletized. Items/Cases are aggregated to the pallet.**

10 **A passive RFID tag is printed and attached to the pallet. If the pallets are placed on a 463L or in a container, an active RFID tag is produced and attached.**

Passive RFID enabled pallet tag printers

Loose Picks

Case Pick

Readers at palletization stations

Shipping

Receiving

Shelf Inventory

Readers on shipping doors

*Passive RFID enabled case tag printers*

5 **Full case picking tags are printed out** with human readable information and barcode on the passive RFID tag.
Shelf readers read individual units on the shelf and update inventory in real time. Replenishment is automatically initiated when shelf inventory reaches a target level.

4

3 Item/Case/Pallet information is used for putaway. Similar logic is used for replenishment and moves.

11 Containers, 463Ls, or pallets are shipped by reading the RFID tag and the AIS is updated.

1 **An active RFID tag** captures arrival at the gate.

2 Items/Cases/Pallets are received by scanning the passive RFID tag and the AIS is updated.
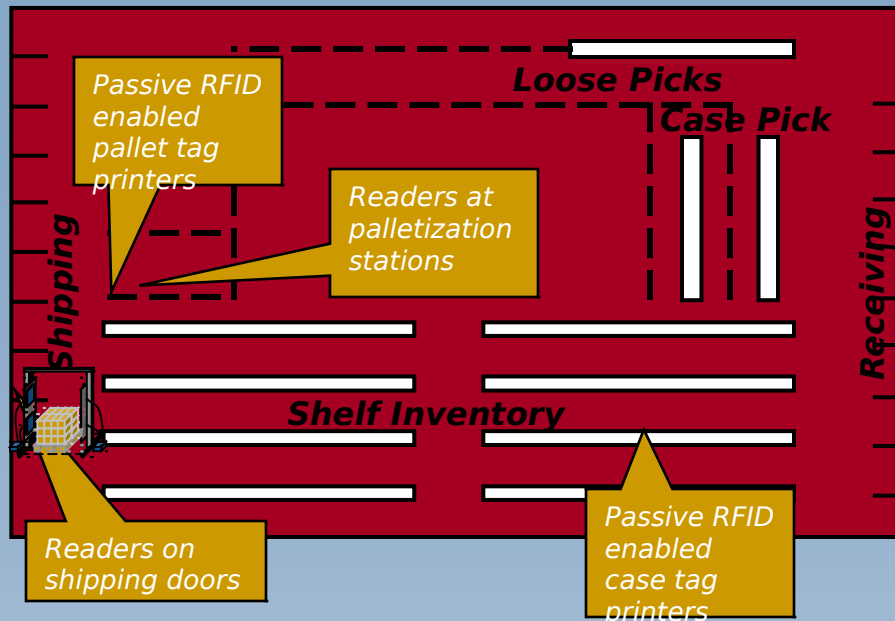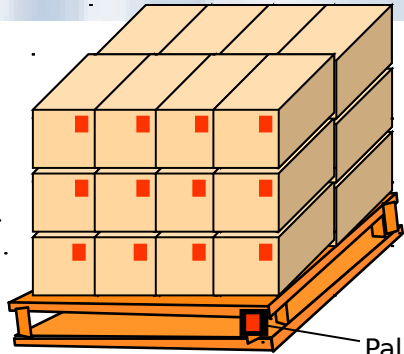
Implementation Dates

- **Active RFID – Operational; Implementation Continuing**

- **Passive RFID**
  - **DoD – Implementation underway now**
  - **Suppliers – Effective Jan 2005 according to the** *Passive Supplier Implementation Plan* **published in**
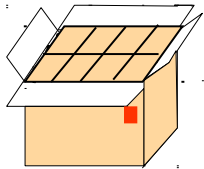
Implementation Plan considers level of packaging

Palletized Unit Load Tag
YES – **January 1, 2005 - 2006**

Pallet tag

Exterior Container
YES – **January 1, 2005 - 2006**

Shipping Container
YES – **January 1, 2005 - 2006**
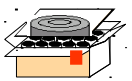
UID Item Unit Pack*
No – **January 1, 2005 - 2006**
YES – **January 1, 2007**

*If the UID Packaging is also an External Container or a Shipping Container, it will have an RFID tag

Implementation Plan considers commodities

Commencing January 1, 2005	Commencing January 1, 2006
> Class I Subclass – Packaged Operational Rations & Packaged Food > Class II – Clothing, Individual Equipment, Tools, & Administrative Supplies > Class VI – Personal Demand Items > Class IX – Repair Parts & Components	> Class I – Subsistence & Gratuitous Health & Comfort Items > Class III – Packaged Petroleum, Lubricants, Oils, Preservatives, Chemicals & Additives > Class IV – Construction & Barrier Equipment > Class V – Ammunition of all types > Class VII – Major End Items > Class VIII – Medical

Passive RFID Implementation Plan for DoD Suppliers

January 1, 2005
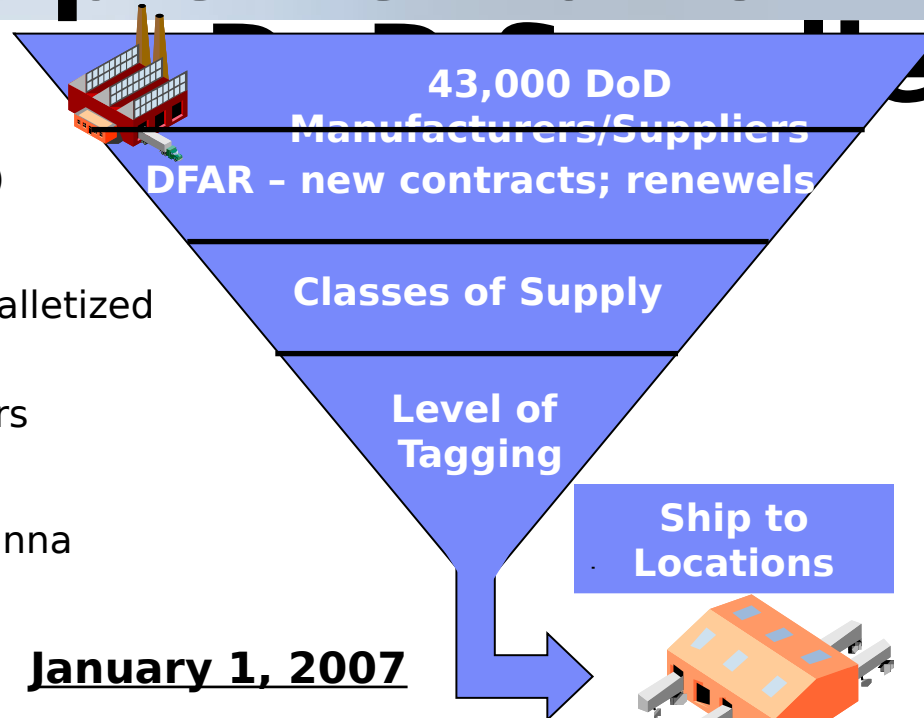
Classes of Supply:

- II, VI, IX, I (PORs/MREs)

Level of Tagging:

- Shipping Containers, Palletized Unit

Loads, Exterior Containers

Ship to locations:

- San Joaquin, Susquehanna

43,000 DoD Manufacturers/Suppliers

DFAR – new contracts; renewels

Classes of Supply

Level of Tagging

Ship to Locations

January 1, 2006

Classes of Supply:

- Begin All Classes

Level of Tagging:

- Shipping Containers, Palletized Unit Loads, Exterior Containers

Ship to locations:

- Strategic CONUS DLA Depots, TRANSCOM Facilities & Service Maintenance Facilities

January 1, 2007

Classes of Supply:

- All Classes

Level of Tagging:

- Shipping Containers, Palletized Unit Loads, Exterior Containers, UID Item Unit Pack

Ship to locations: All Locations

DFAR Clause Details

- **Two Major Requirements for Suppliers**
  - Passive Tagging at the case, pallet, UID item packaging level in accordance with the Implementation Plan
  - Advance Ship Notice (ASN)
- **DFAR clause references the MIL-STD 129 for implementation details**
  - Definitions
  - Tag Data Standards
  - Tag Placement
  - Performance Requirements
- **A Supplier Guide that contains information that details requirements for compliance is located at www.dodrfid.org/supplierguide.htm**

Advance Shipment Notice (associate RFID/material)

Advance Shipment Notice

- EDI 856
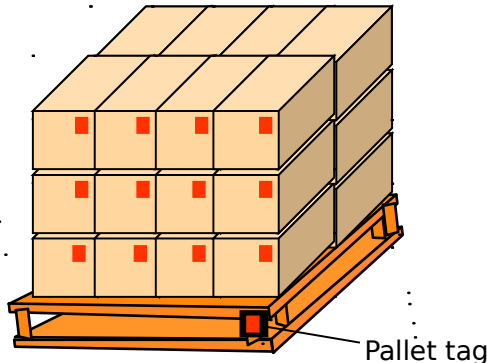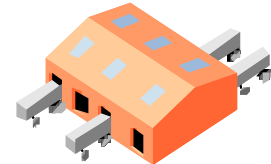- UDF/FTP
- Web page form
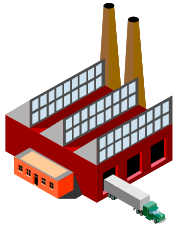
Manufacturers/ Suppliers → **WAWF** → **Distribution Centers/Depots**

Pallet tag

Advance Shipment Notice 856 will be a transportation based transaction
- Pallet
  - External Container
    - CLINs

Benefits across the supply chain

Manufacturers/ Suppliers	Distribution Centers/Depots	POEs/PODs	Transportation/Supply/ Theater Depots/TDCs	Customers

Initial benefit areas

- Improve Intransit and Asset Visibility
- Improve Shipping/Receiving/Transportation Timeliness
- Improve Shipping/Receiving/Transportation Accuracy

Other benefit areas

- Reduced Costs
- Improved Inv Mgt
- Improved Inventory Mgt
- Improved Labor Productivity
- Pipeline Reduction
- Reduced Pipeline
- Reduce NISs
- Speed Payment Process
- Eliminates dup
- Automated Receipt and Acceptance
- Automated Rece
- Reduce Shrinkage
- Reduce Shrinkage

Demand/ Information Flow

Next Steps

- **Publish DFARS Rule for passive RFID**

- **Ready the Distribution Centers to receive tagged materiel**

- **Provide Education and Outreach to the Acquisition Community**

- **Perform Safety Certification Testing (HERO, HERF, HERP) for passive RFID**

- **Receive and Ship Tagged Materiel**

Back to the Future

"I think the industry has sold itself on a program that offers so little return that it simply won't be worth the trouble and expense"

A Midwest Grocery Chain Executive discussing the potential of the barcode in 1975

For More Information

- **Visit our website:**

  www.dodrfid.org
    - Policy Memorandum
    - Supplier's Guide
    - Passive RFID Implementation Plan
    - Passive Tag/Advanced Shipment Notice data constructs
    - Conferences and FAQs
    - MILSTD 129

- **Join us at our RFID Summit (Feb 9-10, 2005 in Washington DC)**

BACK UP

UID vs RFID

	UID	**RFID**
Marking	Item	Packaging
Technology	2D Data Matrix	EPC RFID tag
Purpose	Life cycle data visibility	Supply chain receipt/track
Threshold	>$5000, some	NONE

Separate but integrated initiatives
Different technologies
Different business rules